

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Office Action dated April 19, 2006. Reconsideration and allowance of the application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-15 are currently pending in the Application. Claims 1 and 8 are independent claims. By means of the present amendment, claims 1-15 have been amended for better conformance to U.S. practice, such as deleting reference characters typically used in European practice that are known to not limit the scope of the claims. Further amendments include beginning dependent claims with "the" and correcting certain informalities of form noted upon review of the claims. Claims 1-15 were not amended in order to address issues of patentability and Applicants respectfully reserve all rights under the Doctrine of Equivalents. Applicant furthermore reserves the right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or continuing applications.

In the Office Action it is indicated that the title of the invention was not sufficiently descriptive, and that a new title was required. In response, the current title has been replaced

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

with a new title which is clearly indicative of the invention to which the claims are directed. Accordingly, withdrawal of the objection to the title is respectfully requested.

The abstract is objected to for informalities. The abstract is amended herein to be in proper U.S. format. It is respectfully submitted that the abstract is now in proper U.S. form and an indication to that effect is respectfully requested.

Claim 7 is objected to under 37 CFR 1.75(c) as being improper dependent form for failing to further limit the subject matter of a previous claim. Claim 7 has been amended to cure this deficiency. Accordingly, it is respectfully submitted that Claim 7 is now in proper form and it is respectfully requested that this objection be withdrawn.

Claim 1 is rejected under 35 U.S.C. §101 and 35 U.S.C. §112, second paragraph because the claim is directed to a method and an apparatus. Claim 1 is amended herein as indicated above. It is respectfully submitted that the amendment to claim 1 cures this problem. Accordingly, it is respectfully submitted that Claim 1 is now in proper form and it is respectfully requested that these rejections be withdrawn.

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

Claims 1-6 are rejected under 35 U.S.C. §102(b) as allegedly anticipated by JP Publication number 2001067680 to Seiji et al ("Seiji"). Claims 7-15 are rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Seiji in view of U.S. Patent No. 4,977,554 to Hangai ("Hangai"). These rejections are respectfully traversed.

Seiji is directed towards a device to read an optical disk even under conditions of external vibration. Seiji states that shake of the objective lens by vibration can be reduced by adding a detected vibration signal to the driving signal of an actuator (see, paragraph [0005], lines 2-3). Seiji utilizes a tracking actuator 4 to move an objective lens 2 within a movable range or a delivery device 5 (see, FIG. 1, and paragraph [0033]). A delivery control means 19 performs two types of actuation.

Seiji states in paragraph [0035], lines 5-9:

the delivery device 5 moves pickup so that the objective lens driven with the tracking actuator 4 may be followed. Moreover, in the case of the seek operation which crosses many tracks comparatively, the delivery control signal generating means 19 generates the seeking control signal according to migration length.

The delivery control means 19 receives control signals from detector 6 that detects light reflected from a disk 1 to position

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

the objective lens 2 by moving the delivery device 5 (see, paragraphs [0014] and [0034]). As should be clear from the above, the portion of Seiji indicated in the Office Action has little or nothing to do with the present patent application as required by the claims.

Seiji does show a reverse electromotive voltage detection means 22 that detects a voltage produced by the tracking actuator 4 for controlling the actuator 4 to position the objective lens 2 by a tracking actuator driving means 24 (see, paragraph [0038]).

It is respectfully submitted that the method of Claim 1 is not anticipated or made obvious by the teachings of Seiji. For example, Seiji does not disclose or suggest, a method that amongst other patentable elements, comprises (illustrative emphasis provided):

detecting a substantial deceleration or acceleration or stop of the sledge when moving radially;
the method of detecting comprising an act of detecting a radial displacement of said platform with respect to said sledge

as required by Claim 1 and as substantially required by Claim 8. Based on the foregoing, the Applicant respectfully submits that independent Claims 1 and 8 are patentable over Seiji and notice to

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

this effect is earnestly solicited. Although Hangai is cited in the rejection of Claim 8, it does nothing to cure the above noted deficiencies in Seiji.

In regards to independent claim 8, Hangai allegedly discloses a disc drive apparatus comprising sledge stop detection means comprising radial displacement detection means for detecting a radial displacement of a platform with respect to said sledge where slider 1 is the platform and magnet 5 is the sledge as shown in FIG.2. The Applicant respectfully disagrees. Hangai does not disclose or suggest detecting radial displacement of the magnet 5 to slider 1. Hangai specifically states in column 4, line 8-12,

When the slider 1 arrives at a predetermined position such as an initial position of the disk, the controller 32 gives a rest signal to the up-down counter 31 to reset the count value of the up-down counter 31.

Hangai shows a radial displacement of the slider with respect to a predetermined position and not radial displacement of the slider with respect to magnet 5.

It is respectfully submitted that the apparatus of Claim 8 is not anticipated or made obvious by the teachings of Hangai in view of Seiji. For example, Hangai does not disclose or suggest, a

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

method that amongst other patentable elements, comprising
(illustrative emphasis provided):

said sledge stop detection means comprising
radial displacement detection means for detecting
a radial displacement of said platform with
respect to said sledge

as required by Claim 8. Therefore, claim 8 should be allowed for
the above additional reasons.

Claims 2-7 and 9-15 respectively depend from one of Claims 1
and 8 and accordingly are allowable for at least this reason as
well as for the separately patentable elements contained in each of
said claims.

For example, Hangai is directed towards a slider position
detector for a disk player having an optical pickup 2, a slider 1,
and a guide rail 4 as shown in FIG.1 and a sensor 29, waveform
shaping circuit 30, up-down counter 31, and controller 32 as shown
in FIG.2. The slider-position detector comprises an up-down
counter 31 which indicates a count variable according to the
direction and moved distance of the slider 1. In Hangai, the
counting rate increases with increasing distance and decreases with
decreasing distance. Hangai states in column 5, lines 6-10,

it is determined that the slider 1 has
stopped, when the counting rate of the counter

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

31, i.e. the change rate of the count value counter counted by the counter 31 per a unit time becomes smaller than the predetermined rate.

Hangai states in column 5, lines 13-19,

In other words, the controller 32 causes the motor driving circuit 34 to increase the driving currents supplied to the coils 11 and 12 of the linear motor for driving the slider 1 against the cushion 34a for a predetermined time period after the counting rate has lowered below the predetermined value.

In regards to claim 7, the Office Action alleges that Hangai discloses a method for exerting a force on a sledge and stopping said force as soon as substantial radial displacement of a platform with respect to said sledge is detected. The Applicant respectfully disagrees. Hangai teaches away from stopping said force as soon as substantial radial displacement of said platform is lowered below a certain threshold. In Hangai, the force to the driving coils increases when the distance of the slider from a reference point has decreased below a threshold level "to press the slider 1 against the cushion 34a for a predetermined time period after the counting rate has lowered below the predetermined value." (See, Hangai, Col. 5, lines 7-19.) In addition, in Hangai, the radial displacement only occurs between the slider 1 and some

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

reference point such as an initial position of a disk (see, Hangai, Col. 4, lines 8-12).

It is respectfully submitted that the method of Claim 7 is not anticipated or made obvious by the teachings of Seiji in view of Hangai. For example, Seiji in view of Hangai does not disclose or suggest, a method that amongst other patentable elements, comprises (illustrative emphasis provided):

stopping said force as soon as a substantial radial displacement of said platform with respect to said sledge is detected

as required by Claim 7 and as substantially required by Claim 15. Accordingly, Claims 7 and 15 are allowable for these additional reasons as well. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Patent
Serial No. 10/522,298
Amendment in Reply to Office Action of April 19, 2006

Applicant has made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

By Gregory L. Thorne

Gregory L. Thorne, Reg. 39,398
Attorney for Applicant(s)
July 19, 2005

THORNE & HALAJIAN, LLP
Applied Technology Center
111 West Main Street
Bay Shore, NY 11706
Tel: (631) 665-5139
Fax: (631) 665-5101